

REMARKS

Claims 1-20 remain in this application.

The Office Action rejected claim 20 under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctively claim the subject matter which application regards as the invention. Applicant has amended claim 20 to overcome the rejection and respectfully requests that the rejection be withdrawn.

The present invention results from the discovery that by utilizing a disc guiding unit that can be pivoted, the opportunity for the disc guiding unit to be damaged is reduced when attempted removal of disc jams occur. Ordinarily, the complete disc guiding unit is detached from the hopper during removal of disc jams, which can cause problems. However, by pivoting the disc guiding unit, both ends of a guiding passageway in the disc guiding unit are open for retrieval of the jammed disc. Furthermore, the disc guiding unit can be pivoted to reduce its height for easier maneuverability through small openings.

Independent Claim 1

The Office Action rejected claim 1 under 35 U.S.C. § 103(a) as being unpatentable over *Roedelheimer et al.* (U.S. Patent No. 2,853,0833, hereinafter "*Roedelheimer*") in view of *Abe* (U.S. Patent No. 4,943,258, hereinafter "*Abe*"). Claim 1 has been amended to more clearly define the invention and does not add new matter.

Roedelheimer seeks to solve the problem of dispensing coins for toll booths to prevent heat loss in cars. (Col. 1, lns. 18-30). By utilizing a device attached to the outside of a car, the driver of the car would not have to lower his window to dispense coins for toll booths. (Col. 1, lns. 33-37). This allows the car to retain its heat. (Col. 1, lns. 33-37). To accomplish this, *Roedelheimer* uses an arm 4 that is attached to a car "A" via a pin 5 secured to a bracket 6. (Col.

1, ln. 71 – Col. 2, ln. 10). When the car comes to a toll booth, the driver will pull ring 22 and allow arm 4 to descend through gravitational force into a horizontal position. A toll collector will then extract the coins from discharge slot 17. (Col. 2, ln. 69 – Col. 3 ln. 15).

The present invention seeks to solve the problem of reducing damage to the disc guiding unit when a disc jam occurs and also providing a compact way to transport the disc guiding unit and hopper. It accomplishes this by utilizing a disc guiding unit 15 comprising a hopper side guiding unit 17 and a dispensing side guiding unit 18 as seen in Figures 1- 3. (Spec. ¶ 0037). If there is a disc jam, or there is a need to transport the disc guiding unit and hopper, the disc guiding unit can be pivoted. First, butterfly bolts 69 and 70 are released and taken away from dispensing side guiding unit 18. Next, dispensing side guiding unit 18 is moved from a vertical position as shown in Figure 3 to a horizontal position as shown in Figure 6 in a counterclockwise direction by pivoting on shaft 56. (Spec. ¶ 0065). As can be seen in Figure 6, a lower section of spring 61 is guided by a guiding hole 66 and a guiding bar 67. The lower section of spring 61 is kept at the perpendicular position and spring 61 is transformed into an arc shape. This reduces the pivoting speed of dispensing side guiding unit 18. (Spec. ¶ 0066). In addition, motor 240 is connected in series with a micro switch 244, a contactor 246, and a power source 248. (Spec. ¶ 0086). When the dispensing guide unit 18 is in a vertical position, micro switch 244 is “ON” but when dispensing guide unit 18 is in a horizontal position, micro switch 244 is “OFF.” When micro switch 244 is “ON,” the motor 240 can rotate. However, when micro switch 244 is “OFF,” the motor 240 is turned off and cannot rotate. (Spec. ¶¶ 0087-0089; Figs. 9, 11, 13).

Roedelheimer does not teach or suggest “a switching means for detecting when the disc guiding unit is in the second non-operatively mode.” *Roedelheimer* does not have a switching means to detect when the disc guiding unit is in the second non-operatively mode. *Roedelheimer*

only utilizes a pull ring 22 which can be released and attached to clip 25. (Col. 2, lns. 44-49, Figs. 2-3).

Roedelheimer does not teach or suggest "the switching means is connected in series with an electrical motor." *Roedelheimer* does not have a switching means or an electrical motor.

Roedelheimer does not teach or suggest "when the disc guiding unit is in the second non-operatively mode, the switching means is OFF, and the electrical motor cannot operate." *Roedelheimer* does not utilize a switching means or an electrical motor.

Abe seeks to solve the problem of reducing the frequency of jammed coins when removing the coins from a hopper. Jamming occurs when the coin is deformed or through the gravity of coins being pulled down. Thus, to prevent jamming, the invention in *Abe* reduces the amount of deformed coins retrieved and also reduces the force coins place on each other in vertical movements. *Abe* reduces the amount of deformed coins by utilizing an edge face of the outer edge plate 11, positioned in the outer side in relation to the center of curvature, which is inclined to the back side plate 8 an angle Θ . (Col. 2, lns. 43-46; Col. 4, lns. 3-18; Fig. 2) This allows deformed coins to be bypassed by non-deformed coins and also for the deformed coins to drop down to the hopper. (Col. 4, lns. 3-18; Fig. 2). *Abe* reduces the amount of force on coins during vertical movement by utilizing a coin holding ball 20 which prevents coins 2 from dropping through a wedging effect. (Col. 4, lns. 33-47; Fig. 5).

Abe does not teach or suggest "a disc guiding unit attached to the storage hopper to extend operatively for conveying discs in a first mode of operation and attached to the storage hopper to extend in a second non-operatively mode of operation at a different alignment with the storage hopper." In *Abe*, the disc guiding unit is stationary and does not go from a first mode of

operation to a second non-operatively mode of operation at a different alignment with the storage hopper. (See Fig. 3).

Abe does not teach or suggest "a switching means for detecting when the disc guiding unit is in the second non-operatively mode." *Abe* does not utilize a disc guiding unit that can change between a first mode of operation and a second non-operatively mode, and thus does not have a switching means for detecting when the disc guiding unit is in a second non-operatively mode.

Abe does not teach or suggest "the switching means is connected in series with an electrical motor." Since *Abe* does not teach or suggest the switching means, it also cannot teach or suggest the switching means connected in series with the electrical motor.

Abe does not teach or suggest "whereby when the disc guiding unit is in the second non-operatively mode, the switching means is OFF, and the electrical motor cannot operate." *Abe* does not teach or suggest the disc guiding unit in the second operatively mode, the switching means, or the effect of the electrical motor being off as a result of the switching means being OFF.

Furthermore, there is no motivation to combine *Roedelheimer* with *Abe*. An inventor seeking to solve the problem of reducing damage to the disc guiding unit when a disc jam occurs and also providing a compact way to transport the disc guiding unit and hopper, as in the present invention, would hardly look to an invention directed towards solving the problem of dispensing coins for toll booths to prevent heat loss in cars, or an invention directed towards solving the problem of reducing the frequency of jammed coins when removing the coins from a hopper for inspiration. Neither *Abe* nor *Roedelheimer* sought to reduce the damage to the disc guiding unit

when a disc jam occurred or provide a compact way to transport the disc guiding unit and hopper.

Also, with respect to only the two references an inventor looking to solve the problem of dispensing coins for toll booths to prevent heat loss in cars would hardly look to an invention directed towards solving the problem of reducing the frequency of jammed coins when removing the coins from a hopper for inspiration. This is further exacerbated by the fact that *Roedelheimer* teaches lowering an arm to a horizontal position retrieve coins while *Abe* teaches a stationary vertical arm to retrieve coins in an upwards manner. In addition, *Roedelheimer* teaches an operative mode in a horizontal position and a non-operative mode in a vertical position while *Abe* teaches an operative mode in a vertical position and a non-operative mode in a vertical position. Thus, there is a conflict as to what position the operative mode should be in.

Thus, one highly relevant inquiry in making an evaluation under 35 U.S.C. § 103 is “[t]he relationship between the problem which the inventor . . . was attempting to solve and the problem to which any prior art reference is directed.” *Stanley Works v. McKinney Mfg. Co.*, 216 USPQ 298, 304 (Del. D.C. 1981). Thus, in analyzing the prior art under Section 103 of the Act, we must clearly comprehend the problem addressed by the present inventors and that problem must be compared or contrasted as the case may be, with the problems addressed by the prior art.

In addition, even if the references were combined, however improperly, the resulting combination would still not produce the present invention. The hypothetical combination would be non-functional as there would be a conflict as to whether the operative mode should be horizontal or vertical. *Roedelheimer* operates in a horizontal manner while *Abe* operates in a vertical manner. *Roedelheimer* would not work in a vertical manner, as that is clearly the non-operative mode. Similarly *Abe* would not work in a horizontal manner as it is designed to

operate only in a vertical manner. The hypothetical combination would also not have a switching means for detecting when the disc guiding unit is in the second non-operatively mode or have the switching means connected in series with the electrical motor. In addition the hypothetical combination would not have the function of the electrical motor being inoperable when the switching means is OFF in response to the disc guiding unit being in the second non-operatively mode.

Thus, claim 1 has novelty and inventiveness over *Roedelheimer* in view of *Abe*.

Independent Claim 15

The Office Action rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over *Roedelheimer* in view of *Abe*.

The Office Action admits that *Roedelheimer* does not teach or suggest "a storage hopper for storing coins in bulk."

Roedelheimer does not teach or suggest "a selector unit for removing individual coins from the storage hopper." *Roedelheimer* only lets down an arm and a human retrieves the individual coins. Thus, *Roedelheimer* does not utilize a selector unit.

Roedelheimer does not teach or suggest "a coin elevator unit that is removably attached to the selector unit for transporting coins to a dispensing position, the coin elevator unit is moveably attached to the storage hopper to provide a first mode of operation for dispensing coins and a second mode of operation wherein any coins in the coin elevator unit are held stationary and the coin elevator unit is positioned at a different alignment from the first mode of operation relative to the storage hopper." *Roedelheimer's* arm 4 is attached to a car "A." Unlike the present invention, it is not attached to the selector unit or the storage hopper while being capable of switching between modes of operations.

Roedelheimer does not teach or suggest "a switching means for detecting when the coin elevator unit is in the second mode of operation." *Roedelheimer* does not have a switching means to detect when the coin elevator unit is in the second mode of operation. *Roedelheimer* only utilizes a pull ring 22 which can be released and attached to clip 25. (Col. 2, lns. 44-49, Figs. 2-3).

Roedelheimer does not teach or suggest "the switching means is connected in series with an electrical motor." *Roedelheimer* does not have a switching means or an electrical motor.

Roedelheimer does not teach or suggest "when the coin elevator unit is in the second mode of operation, the switching means is OFF, and the electrical motor cannot operate." *Roedelheimer* does not utilize a switching means or an electrical motor.

Abe does not teach or suggest "a coin elevator unit that is removably attached to the selector unit for transporting coins to a dispensing position, the coin elevator unit is moveably attached to the storage hopper to provide a first mode of operation for dispensing coins and a second mode of operation wherein any coins in the coin elevator unit are held stationary and the coin elevator unit is positioned at a different alignment from the first mode of operation relative to the storage hopper." The coin elevator unit in *Abe* is not moveably attached to the storage hopper to change between two modes of operation as the coin elevator unit in *Abe* remains in a substantially vertical position. (Fig. 3).

Abe does not teach or suggest "a switching means for detecting when the coin elevator unit is in the second mode of operation." *Abe* does not utilize a coin elevator unit that can change between a first mode of operation and a second mode of operation, and thus does not have a switching means for detecting when the coin elevator unit is in the second mode of operation.

Abe does not teach or suggest "the switching means is connected in series with an electrical motor." Since *Abe* does not teach or suggest the switching means, it also cannot teach or suggest the switching means connected in series with the electrical motor.

Abe does not teach or suggest "when the coin elevator unit is in the second mode of operation, the switching means is OFF, and the electrical motor cannot operate." *Abe* does not teach or suggest the coin elevator unit in the second mode of operations, the switching means, or the effect of the electrical motor being off as a result of the switching means being OFF in response to the coin elevator unit being in the second mode of operation.

Furthermore, there is no motivation to combine *Roedelheimer* with *Abe*. An inventor seeking to solve the problem of reducing damage to the disc guiding unit when a disc jam occurs and also providing a compact way to transport the disc guiding unit and hopper, as in the present invention, would hardly look to an invention directed towards solving the problem of dispensing coins for toll booths to prevent heat loss in cars, or an invention directed towards solving the problem of reducing the frequency of jammed coins when removing the coins from a hopper for inspiration. Neither *Abe* nor *Roedelheimer* sought to reduce the damage to the disc guiding unit when a disc jam occurred or provide a compact way to transport the disc guiding unit and hopper.

Also, with respect to only the two references an inventor looking to solve the problem of dispensing coins for toll booths to prevent heat loss in cars would hardly look to an invention directed towards solving the problem of reducing the frequency of jammed coins when removing the coins from a hopper for inspiration. This is further exacerbated by the fact that *Roedelheimer* teaches lowering an arm to a horizontal position retrieve coins while *Abe* teaches a stationary vertical arm to retrieve coins in an upwards manner. In addition, *Roedelheimer* teaches an

operative mode in a horizontal position and a non-operative mode in a vertical position while *Abe* teaches an operative mode in a vertical position and a non-operative mode in a vertical position. Thus, there is a conflict as to what position the operative mode should be in.

In addition, even if the references were combined, however improperly, the resulting combination would still not produce the present invention. The hypothetical combination would be non-functional as there would be a conflict as to whether the operative mode should be horizontal or vertical. *Roedelheimer* operates in a horizontal manner while *Abe* operates in a vertical manner. *Roedelheimer* would not work in a vertical manner, as that is clearly the non-operative mode. Similarly *Abe* would not work in a horizontal manner as it is designed to operate only in a vertical manner.

The hypothetical combination would not have a coin elevator unit that is moveably attached to the storage hopper to provide a first mode of operation for dispensing coins and a second mode of operation wherein any coins in the coin elevator unit are held stationary and the coin elevator unit is positioned at a different alignment from the first mode of operation relative to the storage hopper.

The hypothetical combination would not have a switching means for detecting when the coin elevator unit is in the second mode of operation or have the switching means connected in series with the electrical motor. In addition the hypothetical combination would not have the function of the electrical motor being inoperable when the switching means is OFF in response to the coin elevator unit being in the second mode of operation.

Thus, claim 15 has novelty and inventiveness over *Roedelheimer* in view of *Abe*.

Dependent Claim 4

The Office Action rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over *Roedelheimer* in view of *Abe* and *Starling* (U.S. Patent No. 4,184,645, hereinafter "*Starling*"). Applicant respectfully traverses.

Starling is an invention that aims to solve the problem of tying a fishing fly. It utilizes a clamp in conjunction with a fly.

Starling does not teach or suggest "a buffering unit to provide increasing resistance to movement from the first mode of operation to the second mode of operation." *Starling* uses a spring 101 to induce pressure on a pair of washers 102 which in turn uses frictional contact between the washer 102 and the spool 92 to slow the rate of rotation of spool 92. (Col. 3, ln. 60 – Col. 4, ln. 6). The present invention, however, uses the tension of the spring 61 to provide increasing resistance to movement from the first mode of operation to the second mode of operation. (See Fig. 6).

Furthermore, there is no motivation to combine *Roedelheimer* with *Abe* and *Starling*. An inventor seeking to solve the problem of reducing damage to the disc guiding unit when a disc jam occurs and also providing a compact way to transport the disc guiding unit and hopper, as in the present invention, would hardly look to an invention directed towards solving the problem of dispensing coins for toll booths to prevent heat loss in cars, or an invention directed towards solving the problem of reducing the frequency of jammed coins when removing the coins from a hopper, or an invention that aims to solve the problem of tying a fishing fly for inspiration.

In addition, even if the references were combined, however improperly, the resulting combination would still not produce the present invention. The buffering unit would only be a spring that applies pressure to a washer that utilizes friction to limit the rotational speed of a

spool. It would not be “a buffering unit to provide increasing resistance to movement from the first mode of operation to the second mode of operation.”

Thus, dependent claim 4 has novelty and inventiveness over *Roedelheimer* in view of *Abe* and *Starling*.

Dependent Claims 5 and 19

Dependent claims 5 and 19 incorporate and repeat the arguments for patentability for dependent claim 4.

Dependent Claims 2-14, 16-20

Dependent claims 2-14 and 16-20 further define and limit the scope of claims 1 and 15 and thus have novelty and inventiveness over *Roedelheimer* in view of *Abe*.

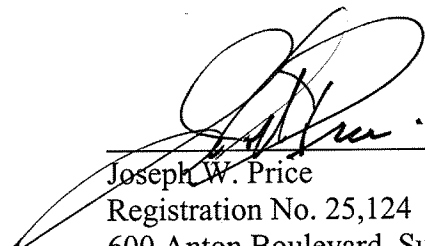
CONCLUSION

It is believed that the present application is allowable and an earlier notification of the same is requested.

If the Examiner believes a telephone interview will help further the prosecution of this application, the undersigned attorney can be contacted at the listed phone number.

Very truly yours,

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